

AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION:

The paragraph beginning on page 7, line 24 has been amended as follows:

The present invention is made for solving the foregoing problem, and features consistent with some embodiments of the present invention are its object is to provide an image processing apparatus or the like that is capable of switching a three-dimensional image and a two-dimensional image and capable of displaying the image thus switched.

The paragraph beginning on page 8, line 5, has been amended as follows:

In order to achieve the feature object, an image processing apparatus is provided with: (a) reduction calculation section(s) for reducing the number of a plurality of input image data, corresponding to a plurality of images that satisfy azimuth difference relations each other, in a lateral direction, respectively; (b) a three-dimensional processing section for combining the image data that have been reduced the number by the reduction calculation section(s) so as to prepare a three-dimensional image data; and (c) a display switching control section for switching and selecting which one of three-dimensional image data prepared by the three-dimensional processing section and two-

dimensional image data prepared by using one of the plurality of input image data should be outputted.

The paragraph beginning on page 9, line 25, has been amended as follows:

In the image processing apparatus, ~~it is preferable that the~~ reduction calculation sections are provided as many as the input image data.

The paragraph beginning on page 10, line 11, has been amended as follows:

In the image processing apparatus, ~~it is preferable that the~~ reduction calculation section temporally switches the plurality of input image data and reduces the number of the input image data thus switched, respectively, so as to output the respective reduced image data in a time-sharing manner.

The paragraph beginning on page 11, line 2, has been amended as follows:

In the image processing apparatus, ~~it is preferable that the~~ reduction calculation section carries out a thinning with respect to the input image data so as to reduce the number of the input image data.

The paragraph beginning on page 11, line 12, has been amended as follows:

In the image processing apparatus, ~~it is preferable that the~~ number of the input image data is  $n$  ( $n$ : integer of not less than 2), and the three-dimensional processing section combines the reduced image data corresponding to  $m$  ( $m$ : integer of not less than 2 but less than  $n$ ) input image data among the  $n$  input image data so as to prepare the three-dimensional image data.

The paragraph beginning on page 11, line 24, has been amended as follows:

An image pickup system in accordance with the present invention, in order to achieve the foregoing feature~~object~~, is provided with: (a) any one of the image processing apparatus; and (b) an image pickup device for picking up the plurality of images that satisfy azimuth difference relations each other so as to obtain the plurality of input image data, and for supplying said image processing apparatus with the plurality of input image data.

The paragraph beginning on page 12, line 7, has been amended as follows:

An image display system in accordance with the present invention, in order to achieve the foregoing feature~~object~~, is provided with: (a) any one of the image processing apparatus; and (b) an image display apparatus for carrying out three-dimensional

image display and two-dimensional image display in response to the three-dimensional image data and the two-dimensional image data that are outputted from the image processing apparatus, respectively.

The paragraph beginning on page 12, line 16, has been amended as follows:

An image pickup display system in accordance with the present invention, in order to achieve the foregoing feature~~object~~, is provided with: (a) any one of the image processing apparatus; (b) image pickup device for picking up the plurality of images that satisfy azimuth difference relations each other so as to obtain the plurality of input image data, and for supplying the image processing apparatus with the plurality of input image data; and (c) an image display apparatus for carrying out three-dimensional image display and two-dimensional image display in response to the three-dimensional image data and the two-dimensional image data that are outputted from the image processing apparatus, respectively.

The paragraph beginning on page 13, line 5, has been amended as follows:

In the image pickup display system, ~~it is preferable that~~: (a) the number of the input image data that are supplied to the image pickup device is  $n$  ( $n$ : integer of not less than 2), (b) the image

display apparatus can carry out the three-dimensional image display of n-eye type that has a resolution of (transversal w-line x longitudinal h-line), where each of w and h is a positive integer, and (c) the said image pickup device has a higher resolution than a resolution of (transversal w/n-line x longitudinal h-line).

The paragraph beginning on page 13, line 23, has been amended as follows:

In the image pickup display system, ~~it is preferable that the~~ image pickup device has different resolutions for the respective input image data.

The paragraph beginning on page 14, line 14, has been amended as follows:

Fig. 1 is a block diagram showing a structure of an image pickup display system of a first embodiment in accordance with the present invention;[[.]]

The paragraph beginning on page 14, line 17, has been amended as follows:

Fig. 2 is a block diagram showing how image data flows in the case of carrying out a three-dimensional image display in the image pickup display system shown in Fig. 1;[[.]]

The paragraph beginning on page 14, line 21, has been amended as follows:

Fig. 3 is a plan view showing the relation between an image display apparatus and a user in order to explain the three-dimensional image display based on the parallax barrier principle;[[.]]

The paragraph beginning on page 14, line 25, has been amended as follows:

Fig. 4 is a plan view showing the relation between an image display apparatus and a user in order to explain the three-dimensional image display based on the lenticular lens principle;[[.]]

The paragraph beginning on page 15, line 4, has been amended as follows:

Fig. 5 is a block diagram showing how image data changes among blocks of the image pickup display system shown in Fig. 1 in the case where a three-dimensional image display is carried out by the image pickup display system;[[.]]

The paragraph beginning on page 15, line 9, has been amended as follows:

Fig. 6 is a block diagram showing how image data flows in the case of carrying out a two-dimensional image display in the image pickup display system shown in Fig. 1;[[.]]

The paragraph beginning on page 15, line 13, has been amended as follows:

Fig. 7 is a block diagram showing a structure of an image pickup display system of a second embodiment in accordance with the present invention;[[.]]

The paragraph beginning on page 15, line 16, has been amended as follows:

Fig. 8 is a block diagram showing how image data flows in the case of carrying out a three-dimensional image display in the image pickup display system shown in Fig. 7;[[.]]

The paragraph beginning on page 15, line 20, has been amended as follows:

Fig. 9 is a block diagram showing how image data changes among blocks of the image pickup display system shown in Fig. 7 in the case where a three-dimensional image display is carried out by the image pickup display system, and especially is a block diagram showing that an input image data has been prepared by pickup apparatuses for the right and left eyes, respectively;[[.]]

The paragraph beginning on page 16, line 2, has been amended as follows:

Fig. 10 is a block diagram showing how image data changes among blocks of the image pickup display system shown in Fig. 7 in

the case where a three-dimensional image display is carried out by the image pickup display system, and especially is a block diagram showing that an input image data prepared by a pickup apparatus for the right eye is reduced the number by 50 percent merely in a lateral direction and outputted by a reduction calculation section;<sub>i</sub>[[.]]

The paragraph beginning on page 16, line 11, has been amended as follows:

Fig. 11 is a block diagram showing how image data changes among blocks of the image pickup display system shown in Fig. 7 in the case where a three-dimensional image display is carried out by the image pickup display system, and especially is a block diagram showing that an input image data for the right eye that has been reduced the number of is stored in a frame memory and simultaneously an input image data for the left eye that has been prepared by a pickup apparatus is reduced the number by 50 percent merely in a lateral direction and outputted;<sub>i</sub>[[.]]

The paragraph beginning on page 16, line 22, has been amended as follows:

Fig. 12 is a block diagram showing how image data changes among blocks of the image pickup display system shown in Fig. 7 in the case where a three-dimensional image display is carried out by the image pickup display system, and especially is a block diagram showing that an input image data for the left eye that has been



reduced the number of is stored in a frame memory and a thus  
finished three-dimensional image data is in the frame memory;[[.]]

The paragraph beginning on page 17, line 6, has been amended  
as follows:

Fig. 13 is a block diagram showing how image data changes  
among blocks of the image pickup display system shown in Fig. 7 in  
the case where a three-dimensional image display is carried out by  
the image pickup display system, and especially is a block diagram  
showing that a three-dimensional image data stored in a frame  
memory is outputted to an image display apparatus;[[.]]

The paragraph beginning on page 17, line 13, has been amended  
as follows:

Fig. 14 is a block diagram showing how image data flows in the  
case of carrying out a two -dimensional image display in the image  
pickup display system shown in Fig. 7;[[.]]

The paragraph beginning on page 17, line 17, has been amended  
as follows:

Fig. 15 is a block diagram showing how image data changes  
among blocks of an image pickup display system in an image data  
processing of a third embodiment in accordance with the present  
invention;[[.]]

The paragraph beginning on page 17, line 21, has been amended as follows:

Fig. 16 is a block diagram showing how image data changes among blocks of an image pickup display system in an image data processing of a fourth embodiment in accordance with the present invention;[[.]]

The paragraph beginning on page 17, line 25, has been amended as follows:

Fig. 17 is a block diagram showing how image data changes among blocks of an image pickup display system in an image data processing of a fifth embodiment in accordance with the present invention;[[.]]

The paragraph beginning on page 18, line 4, has been amended as follows:

Fig. 18 is a block diagram showing a structure of an image pickup display system of a sixth embodiment in accordance with the present invention;[[.]]

The paragraph beginning on page 18, line 7, has been amended as follows:

Fig. 19 is a cross sectional view showing a cross section of a conventional image display apparatus of parallax barrier type;[[.]]

The paragraph beginning on page 18, line 10, has been amended as follows:

Fig. 20 is a plan view showing how the image display apparatus shown in Fig. 19 relates to a user in order to explain the principle of a three-dimensional image display; and[[.]]